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10/824,591	04/15/2004	Norman M. Ladouceur	T8468170US	6635

EXAMINER	
SITTA, GRANT	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/824,591	Applicant(s) LADOUCEUR ET AL.	
	Examiner Grant D. Sitta	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/27/2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because the abstract is multiple paragraphs and exceeds 150 words. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1,2, 7-12 15, 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Rosenberg (WO 99/49443), hereinafter Rosenberg.

5. In regards to claim 1, Rosenberg a scrollwheel (fig. 1 (16)) for providing input to the handheld electronic device (fig. 1 (12)); a dynamic feedback module connected (fig 13a-c (270)) to the scrollwheel for providing a plurality of types of feedback to a (fig 13a-c (270)) user of the handheld electronic device (page 41), each type of feedback associated with at least one of a plurality of feedback modes (figs 15a-b); and a software module (page 11) for selecting a feedback mode from the plurality of feedback modes and activating the associated type of feedback (page 12, lines 1-6) provided by the dynamic feedback module (fig 13a-c (270)).

6. In regards to claim 15, Rosenberg teaches 15. A dynamic feedback system for use with a handheld electronic device(fig. 1 (12));, the dynamic feedback system comprising: a scrollwheel (fig. 1 (16)) for providing input to the handheld electronic device(fig. 1 (12));; a dynamic feedback module (fig 13a-c (270)) connected to the scrollwheel (fig. 1 (16)) for providing a plurality of types of feedback to a user of the handheld electronic device(fig. 1 (12)), each type of feedback associated with at least one of a plurality of feedback modes(fig 13a-c (270)) ; and a software module (page 11) for selecting a feedback mode from the plurality of feedback modes (page 12, lines 1-6) and activating the associated type of feedback provided by the dynamic feedback module (fig 13a-c (270)).

7. In regards to claim 27, Rosenberg method for providing feedback (page 12) on a handheld electronic device (fig. 1 (12)) having a scrollwheel (fig. 1 (16)), the method comprising the steps of: providing a user initiated input to the handheld electronic device through the scrollwheel (fig. 1 (16)); analysing data associated with the user initiated input (page 12); deciding if a feedback response is required (page 4-6); and if a feedback response is required, initiating an appropriate feedback mode (page 4-6).

8. In regards to claim 2, Rosenberg teaches wherein the software module selects the feedback (page 12 "For example, the computer system may provide force feedback commands to the wheel when the user moves the graphical object against a generated surface such as an edge of a window, a virtual wall, etc."). mode based on feedback data associated with a data page on the handheld electronic device (pages 11-12, and 35 and fig. 11).

9. In regards to claim 7, Rosenberg teaches wherein the dynamic feedback module comprises means for resisting rotational motion of the scrollwheel (page 21, lines 1-35).

10. In regards to claim 8, Rosenberg teaches wherein the means for resisting rotational motion of the scrollwheel comprises an electromagnetic motor (page 21, lines 1-35).

11. In regards to claim 9, Rosenberg teaches wherein the means for resisting rotational motion of the scrollwheel comprises at least one mechanical clutch plate (page 21, lines 1-35).

12. In regards to claim 10, Rosenberg teaches wherein the dynamic feedback module comprises means for providing lateral motion of the scrollwheel (page 15-19, lines 25-31 and (page 21, lines 1-35)).

13. In regards to claim 11, Rosenberg teaches wherein the means for providing lateral motion of the scrollwheel comprises a cam mechanism (page 15-19, lines 25-31 and (page 21, lines 1-35)).

14. In regards to claim 12, Rosenberg teaches wherein the means for providing lateral motion of the scrollwheel comprises an electromechanical switch (page 15-19, lines 25-31 and (page 21, lines 1-35)).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

17. Claims 3-6 and 13, 14, 16-26, 28-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenberg, in view of Braun et. al (US 6,300,936) hereinafter, Braun.

18. In regards to claim 3, Rosenberg discloses the limitations of claim 1, Rosenberg differs from the claimed invention in that Rosenberg does not disclose *explicitly* disclose wherein the software module selects the feedback mode based on a set of predetermined criteria

However, Braum teaches a system and method for wherein the software module selects the feedback mode based on a set of predetermined criteria ("Effects are standardized forces that are determined according to a predefined characterization "col. 22, lines 35-67 of Braum).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Rosenberg to include the use of a force feedback system and architecture which allows control of a force feedback device in a multi-tasking graphical host environment as taught by Braum stated in (col. 3, lines 22-67 of Braum).

19. In regards to claim 4, Braum teaches wherein the predetermined criteria are based on preferences selected by the user (abstract "background application also provides force effects to be output and allows a user to assign force effects to graphical objects in a graphical user interface").

20. In regards to claim 5, Braum teaches wherein the predetermined criteria are established in a software algorithm ("Preferably, both the host and the device adjust the screen position using a ballistics algorithm" col. 4, lines 22-50).

21. In regards to claim 6, Braum teaches wherein the predetermined criteria are based on a position of a cursor controlled by the scrollwheel ("In another

aspect of the present invention, a force feedback device reads sensor data and determines a position of a user manipulandum in a workspace of the device. A position of the manipulandum is reported to the host computer so that the host can display the cursor in a graphical environment” col. 4, lines 40-67).

22. In regards to claim 13, Braum teaches comprising a keyboard (“The active window is typically the topmost displayed window in which input is provided by the user using the mouse-controlled cursor, a **keyboard**, or other (fig. 4, col. 6, lines 34-67).

23. In regards to claim 14, Braum teaches further comprising a touchscreen (“The active window is typically the topmost displayed window in which input is provided by the user using the mouse-controlled cursor, a keyboard, or **other** (fig. 4, col. 6, lines 34-67).

24. In regards to claim 16, Rosenberg teaches wherein the software module selects the feedback mode based on feedback data associated with a data page on the handheld electronic device (page 4, line 4- page 6, line 35).

25. In regards to claim 17, Braum teaches wherein the software module selects the feedback mode based on a set of predetermined criteria ("Preferably, both the host and the device adjust the screen position using a ballistics algorithm" col. 4, lines 22-50).

26. In regards to claim 18, Braum teaches wherein the predetermined criteria are based on preferences selected by the user (abstract "background application also provides force effects to be output and allows a user to assign force effects to graphical objects in a graphical user interface").

27. In regards to claim 19, Braum teaches wherein the predetermined criteria are established in a software algorithm ("Preferably, both the host and the device adjust the screen position using a ballistics algorithm" col. 4, lines 22-50).

28. In regards to claim 20, Braum teaches wherein the predetermined criteria are based on a position of a cursor controlled by the scrollwheel ("In another aspect of the present invention, a force feedback device reads sensor data and determines a position of a user manipulandum in a workspace of the device. A position of the manipulandum is reported to the host computer so that the host can display the cursor in a graphical environment" col. 4, lines 40-67).

29. In regards to claim 21, Rosenberg teaches wherein the dynamic feedback module comprises means for resisting rotational motion of the scrollwheel (page 21, lines 1-35).

30. In regards to claim 22, Rosenberg teaches wherein the means for resisting rotational motion of the scrollwheel comprises an electromagnetic motor (page 21, lines 1-35).

31. In regards to claim 23, Rosenberg teaches wherein the means for resisting rotational motion of the scrollwheel comprises at least one mechanical clutch plate (page 21, lines 1-35).

32. In regards to claim 24, wherein the dynamic feedback module comprises means for providing lateral motion of the scrollwheel (page 15-19, lines 25-31 and (page 21, lines 1-35)).

33. In regards to claim 25, Rosenberg teaches wherein the means for providing lateral motion of the scrollwheel comprises a cam mechanism (page 15-19, lines 25-31 and (page 21, lines 1-35)).

34. In regards to claim 26, Rosenberg teaches wherein the means for providing lateral motion of the scrollwheel comprises an electromechanical switch (page 15-19, lines 25-31 and (page 21, lines 1-35)).

35. In regards to claim 28, Braum teaches wherein the decision to initiate a feedback response is based on a feedback trigger associated with a particular data page ("Alternatively, an event can be triggered when the cursor moves over a close box of a window, or the cursor moves over a file icon and a button is pressed. An event can also be defined when the cursor moves within a specified range of a particular graphical object or region" col. 22, lines 35-67).

36. In regards to claim 29, Rosenberg teaches wherein the feedback mode is determined based on the feedback trigger associated with a particular data (page 4, line 4- page 6, line 35).

37. In regards to claim 30, Braum teaches wherein the feedback mode is based on a set of predetermined criteria ("In another aspect of the present invention, a force feedback device reads sensor data and determines a position of a user manipulandum in a workspace of the device. A position of the manipulandum is reported to the host computer so that the host can display the cursor in a graphical environment" col. 4, lines 40-67).

38. In regards to claim 31, Braum teaches wherein the predetermined criteria are based on preferences selected by the user (abstract "background application also provides force effects to be output and allows a user to assign force effects to graphical objects in a graphical user interface").

39. In regards to claim 32, Braum teaches wherein the predetermined criteria are established in a software algorithm ("Preferably, both the host and the device adjust the screen position using a ballistics algorithm" col. 4, lines 22-50).

40. In regards to claim 33, Braum teaches wherein the predetermined criteria are based on a position of a cursor controlled by the scrollwheel ("In another aspect of the present invention, a force feedback device reads sensor data and determines a position of a user manipulandum in a workspace of the device. A

position of the manipulandum is reported to the host computer so that the host can display the cursor in a graphical environment" col. 4, lines 40-67).

41. In regards to claim 34, Braum teaches wherein the feedback mode is associated with a type of feedback "The host computer or force feedback device may also command the mouse 12 to act as a different type of control device for some embodiments. The force feedback device 11 is primarily intended, in the embodiment described in FIG. 2, to be used in a graphical environment such as a GUI, in which multi-tasking applications are provided. When the force feedback device is used as such, the API 208 and other layers described above are preferably used. However, the force feedback device can also be used as a different type of controller and may use other standard API's. For example, the mouse force feedback device 11 as shown in FIG. 2 may also be desired to be used in conjunction with game application programs, simulations, or the like" col. 29, lines 24-67).

42. In regards to claim 35, Rosenberg teaches wherein the type of feedback comprises a lateral movement of the scrollwheel (page 4-6, lines 4-31).

43. In regards to claim 36, Rosenberg teaches wherein the lateral movement of the scrollwheel is in a positive direction (page 4-6, lines 4-31).

44. In regards to claim 37, Rosenberg teaches wherein the lateral movement of the scrollwheel is in a negative direction (page 4-6, lines 4-31).

45. In regards to claim 38, Rosenberg teaches wherein the type of feedback comprises a resistance to rotational movement of the scrollwheel (page 4-6, lines 4-31).

46. In regards to claim 39, Rosenberg teaches wherein the resistance to rotational movement of the scrollwheel is absolute, and the scrollwheel cannot rotate (page 4-6, lines 4-31 and pages 21-29 lines 3-3), and Braum (6,864,877).

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shahoian (6,693,622) and Affinito (4,868,549).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Grant D. Sitta whose telephone number is 571-270-1542. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571-272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Grant D. Sitta
January 14, 2008


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SUPERVISORY PATENT EXAMINER